

AMENDMENTS TO THE CLAIMS

Please cancel claims 13 and 28 without prejudice to further prosecution in a divisional, continuation, continuation-in-part or other application. Please amend claims 1, 2, 6, 14-16 and 29-30 as shown below.

1. (Amended) A multicolor display comprising
a substrate; and

at least one multicolor generation site coupled to said substrate, each of said at least one multicolor generation sites comprised of:

at least two light emitting regions proximate to one another; and

at least one wavelength conversion layer applied to at least one of said at least two light emitting regions, wherein said at least two light emitting regions in combination with said at least one wavelength conversion layer emit at least two different colors; and

a cross-talk minimization layer interposed between said substrate and said at least two light emitting regions.

2. (Amended) A multicolor display comprising
a substrate; and

a multicolor generation site grown on said substrate comprising:

at least two LEDs proximate to one another; and

a first wavelength conversion layer applied to a light emitting surface of a first of said at least two LEDs, wherein said at least two LEDs in combination with said first wavelength conversion layer emit at least two different colors; and

a cross-talk minimization layer interposed between said substrate and said at least two LEDs.

3. (Original) The multicolor display of claim 2, wherein said at least two LEDs are comprised of three individual LEDs proximate to one another.

4. (Original) The multicolor display of claim 3, further comprised of a second wavelength conversion layer applied to a light emitting surface of a second of said three

individual LEDs, wherein said three individual LEDs in combination with said first and second wavelength conversion layers emit three different colors.

5. (Original) The multicolor display of claim 2, wherein said at least two LEDs emit light at a wavelength in the range of wavelengths between 4,000 and 4,912 Angstroms.

6. (Amended) A multicolor display comprising
a substrate; and
a plurality of multicolor generation sites grown on said substrate, each of said plurality of multicolor generation sites comprised of:
at least two LEDs proximate to one another; and
a wavelength conversion layer deposited on a light emitting surface of a first of said at least two LEDs, wherein said at least two LEDs in combination with said wavelength conversion layer emit at least two different colors; and
a cross-talk minimization layer interposed between said substrate and said at least two LEDs.

7. (Original) The multicolor display of claim 6, further comprising an index matching layer interposed between said wavelength conversion layer and said light emitting surface of said first LED.

8. (Original) The multicolor display of claim 6, further comprising a protective layer deposited on an exterior surface of said wavelength conversion layer.

9. (Original) The multicolor display of claim 6, further comprising a protective layer deposited on a light emitting surface of a second of said at least two LEDs.

10. (Original) The multicolor display of claim 6, further comprising a region of opaque material deposited between said at least two LEDs.

11. (Original) The multicolor display of claim 6, wherein said substrate is selected from the group consisting of sapphire, silicon carbide and gallium nitride.

12. (Original) The multicolor display of claim 6, wherein said at least two LEDs emit light at a wavelength in the range of wavelengths between 4,000 and 4,912 Angstroms.

13. (Cancelled)

14. (Amended) The multicolor display of claim 6 ~~43~~, wherein said cross-talk minimization layer is comprised of a Bragg reflector.

15. (Amended) The multicolor display of claim 6 ~~43~~, wherein said cross-talk minimization layer is comprised of a partially absorbing layer.

16. (Amended) A multicolor display comprising
a substrate; and

a plurality of multicolor generation sites grown on said substrate, each of said plurality of multicolor generation sites comprised of:

three LEDs proximate and immediately adjacent to one another;

a first wavelength conversion layer deposited on a light emitting surface of a first of said three LEDs; and

a second wavelength conversion layer deposited on a light emitting surface of a second of said three LEDs, wherein said three LEDs in combination with said first and second wavelength conversion layers emit three different wavelengths; and

a cross-talk minimization layer interposed between said substrate and said three LEDs.

17. (Original) The multicolor display of claim 16, wherein said substrate is selected from the group consisting of sapphire, silicon carbide and gallium nitride.

18. (Original) The multicolor display of claim 16, wherein said first and second wavelength conversion layers are selected from the group of materials consisting of phosphors and active polymers.

19. (Original) The multicolor display of claim 16, wherein said three LEDs emit light at a wavelength in the range of wavelengths between 4,000 and 4,912 Angstroms.

20. (Original) The multicolor display of claim 16, wherein said first wavelength conversion layer converts light in a first wavelength range of between 4,000 and 4,912 Angstroms to light in a second wavelength range of between 4,912 and 5,750 Angstroms.

21. (Original) The multicolor display of claim 16, wherein said second wavelength conversion layer converts light in a first wavelength range of between 4,000 and 4,912 Angstroms to light in a second wavelength range of between 6,470 and 7,000 Angstroms.

22. (Original) The multicolor display of claim 16, further comprising:
a first index matching layer interposed between said first wavelength conversion layer and said light emitting surface of said first LED; and
a second index matching layer interposed between said second wavelength conversion layer and said light emitting surface of said second LED.

23. (Original) The multicolor display of claim 16, further comprising:
a first protective layer deposited on an exterior surface of said first wavelength conversion layer; and
a second protective layer deposited on an exterior surface of said second wavelength conversion layer.

24. (Original) The multicolor display of claim 23, wherein said first and second protective layers are equivalent layers.

25. (Original) The multicolor display of claim 23, further comprising a third protective layer deposited on a light emitting surface of a third of said three LEDs.

26. (Original) The multicolor display of claim 16, further comprising a region of opaque material deposited between adjacent surfaces of said three LEDs.

27. (Original) The multicolor display of claim 16, further comprising:
a plurality of channels within said substrate, said plurality of channels separating adjacent LEDs of said three LEDs; and
opaque material deposited within said plurality of channels.

28. (Cancelled)

29. (Amended) The multicolor display of claim 16 28, wherein said cross-talk minimization layer is comprised of a Bragg reflector.

30. (Amended) The multicolor display of claim 16 ~~28~~, wherein said cross-talk minimization layer is comprised of a partially absorbing layer.